Specifications

Photo is representative

Eaton 292375

Eaton Moeller® series LSM Safety position switch, LS(M)-..., Rounded plunger, Basic device, not expandable, 2 N/O, Yellow, Metal, Cage Clamp, -25 - +70 °C

General specifications

PRODUCT NAME	Eaton Moeller® series LSM Safety position switch
CATALOG NUMBER	292375
MODEL CODE	LSM-20/F
EAN	4015082923754
PRODUCT LENGTH/DEPTH	33.5 mm
PRODUCT HEIGHT	76.5 mm
PRODUCT WIDTH	31 mm
PRODUCT WEIGHT	0.15 kg
COMPLIANCES	CE Marked
CERTIFICATIONS	EN 60947-5 IEC 60947-5 UL 508 CSA Std. C22.2 No. 14 VDE IEC/EN 60947-5 UL Category Control No.: NKCR CE CSA File No.: 012528 IEC/EN 60947 UL File No.: E29184 CSA CSA Class No.: 3211-03 CSA-C22.2 No. 14 UL

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Features & Functions

ELECTRIC CONNECTION TYPE	Cable entry metrical
ENCLOSURE COLOR	Yellow Cover
ENCLOSURE MATERIAL	Metal
SWITCH FUNCTION TYPE	Slow-action switch

General

CONNECTION TYPE	Cage Clamp
DEGREE OF PROTECTION	IP66/IP67 NEMA Other
OPERATING FREQUENCY	6000 Operations/h
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	3
PRODUCT CATEGORY	Rounded plunger
RATED IMPULSE WITHSTAND VOLTAGE (UIMP)	4000 V AC
REPETITION ACCURACY	0.15 mm (Contacts/switching capacity)
TYPE	Position switch

Ambient conditions, mechanical

MOUNTING POSITION	As required
SHOCK RESISTANCE	25 g, Standard-action contact, Mechanical, Half-sinusoidal shock 20 ms
TEMPERATURE RESISTANCE	100 °C, Contact temperature of roller head

Climatic environmental conditions

AMBIENT OPERATING TEMPERATURE - MIN	-25 °C
AMBIENT OPERATING TEMPERATURE - MAX	70 °C
CLIMATIC PROOFING	Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30

Terminal capacities

TERMINAL CAPACITY (FLEXIBLE WITH FERRULE)	1 x (0.5 - 1.5) mm^2
TERMINAL CAPACITY (SOLID)	1 x (0.5 - 2.5) mm^2

Electrical rating

RATED CONDITIONAL SHORT-CIRCUIT CURRENT (IQ)	1 kA
RATED INSULATION VOLTAGE (UI)	400 V
RATED OPERATIONAL CURRENT (IE) AT AC-15, 220 V, 230 V, 240 V	6 A
RATED OPERATIONAL CURRENT (IE) AT AC-15, 24 V	6 A
RATED OPERATIONAL CURRENT (IE) AT AC-15, 380 V, 400 V, 415 V	4 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 110 V	0.6 A

RATED OPERATIONAL CURRENT (IE) AT DC-13, 125 V	0.8 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 220 V, 230 V	0.3 A
RATED OPERATIONAL CURRENT (IE) AT DC-13, 24 V	3 A
SHORT-CIRCUIT PROTECTION RATING	Max. 6 A gG/gL, Fuse, Contacts
SUPPLY FREQUENCY	Max. 400 Hz, Contacts

Actuator

ACTUATING FORCE AT BEGINNING/END OF STROKE	1.0 N/8.0 N
ACTUATING TORQUE OF ROTARY DRIVES	0.2 Nm
ACTUATOR TYPE	Plunger
OPERATING SPEED	For angle of actuation α = 0°/30° Max. 1/0.5 m/s (with DIN cam, mechanical actuation)

Contacts

CONTROL CIRCUIT RELIABILITY	1 failure per 5,000,000 switching operations (statistically determined, at 5 V DC/1 mA) 1 failure per 10,000,000 switching operations (Statistically determined, at 24 V DC/5 mA)
NUMBER OF CONTACTS (CHANGE-OVER CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY CLOSED CONTACTS)	0
NUMBER OF CONTACTS (NORMALLY OPEN CONTACTS)	2

Safety

EXPLOSION SAFETY CATEGORY FOR GAS	None
EXPLOSION SAFETY CATEGORY FOR DUST	None

Design verification

EQUIPMENT HEAT DISSIPATION, CURRENT-DEPENDENT PVID	0 W
HEAT DISSIPATION CAPACITY PDISS	0 W
HEAT DISSIPATION PER POLE, CURRENT-DEPENDENT PVID	0.17 W
RATED OPERATIONAL CURRENT FOR SPECIFIED HEAT DISSIPATION (IN)	6 A
STATIC HEAT DISSIPATION, NON-CURRENT-DEPENDENT PVS	0 W

10.2.2 CORROSION RESISTANCE	Meets the product standard's requirements.
10.2.3.1 VERIFICATION OF THERMAL STABILITY OF ENCLOSURES	Meets the product standard's requirements.
10.2.3.2 VERIFICATION OF RESISTANCE OF INSULATING MATERIALS TO NORMAL HEAT	Meets the product standard's requirements.
10.2.3.3 RESIST. OF INSUL. MAT. TO ABNORMAL HEAT/FIRE BY INTERNAL ELECT. EFFECTS	Meets the product standard's requirements.
10.2.4 RESISTANCE TO ULTRA-VIOLET (UV) RADIATION	Meets the product standard's requirements.
10.2.5 LIFTING	Does not apply, since the entire switchgear needs to be evaluated.
10.2.6 MECHANICAL IMPACT	Does not apply, since the entire switchgear needs to be evaluated.
10.2.7 INSCRIPTIONS	Meets the product standard's requirements.
10.3 DEGREE OF PROTECTION OF ASSEMBLIES	Does not apply, since the entire switchgear needs to be evaluated.
10.4 CLEARANCES AND CREEPAGE DISTANCES	Meets the product standard's requirements.
10.5 PROTECTION AGAINST ELECTRIC SHOCK	Does not apply, since the entire switchgear needs to be evaluated.
10.6 INCORPORATION OF SWITCHING DEVICES AND COMPONENTS	Does not apply, since the entire switchgear needs to be evaluated.
10.7 INTERNAL ELECTRICAL CIRCUITS AND CONNECTIONS	Is the panel builder's responsibility.
10.8 CONNECTIONS FOR EXTERNAL CONDUCTORS	Is the panel builder's responsibility.
10.9.2 POWER-FREQUENCY ELECTRIC STRENGTH	Is the panel builder's responsibility.
10.9.3 IMPULSE WITHSTAND VOLTAGE	Is the panel builder's responsibility.
10.9.4 TESTING OF ENCLOSURES MADE OF INSULATING MATERIAL	Is the panel builder's responsibility.
10.10 TEMPERATURE RISE	The panel builder is

	responsible for the temperature rise calculation. Eaton will provide heat dissipation data for the devices.
10.11 SHORT-CIRCUIT RATING	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.12 ELECTROMAGNETIC COMPATIBILITY	Is the panel builder's responsibility. The specifications for the switchgear must be observed.
10.13 MECHANICAL FUNCTION	The device meets the requirements, provided the information in the instruction leaflet (IL) is observed.

Resources

CATALOGUES	eaton-pushbuttons-signal-towers-sensors-assortment-overview-catalog-ca047003en-en-us.pdf eaton-product-overview-for-machinery-catalogue-ca08103003zen-en-us.pdf
CONTROL TRAVEL DIAGRAM	eaton-position-switches-diagram-ls-contact-travel-diagram-020.eps
DECLARATIONS OF CONFORMITY	eaton-position-switch-declaration-of-conformity-uk251032en.pdf DA-DC-00004160.pdf DA-DC-00004133.pdf eaton-position-switch-declaration-of-conformity-eu250549en.pdf
DRAWINGS	eaton-position-switches-plunger-ls-dimensions.eps eaton-position-switches-switch-ls-dimensions.eps eaton-operating-button-symbol-008.eps eaton-position-switches-ls-3d-drawing.eps
ECAD MODEL	ETN.292375.edz
INSTALLATION INSTRUCTIONS	IL053001ZU
MCAD MODEL	DA-CD-lsm_front DA-CS-lsm_front
SALES NOTES	eaton-safety-switches-rs-titan-flyer-fl053001en-en-us.pdf
WIRING DIAGRAMS	eaton-position-switches-contact-ls-wiring-diagram-002.eps

PROJECT NAME:	
PROJECT NUMBER:	
PREPARED BY:	
DATE:	

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